Fastener Tightening Specifications

Application	Specification	
	Metric	English
Amplifier Mounting Bracket to Vehicle Retaining Bolts	22 N·m	16 lb ft
Amplifier to Mounting Bracket Retaining Screws	2 N·m	22 lb in
Antenna Module Ground Point to Roof Panel Retaining Bolt	2 N·m	18 lb in
Antenna Module to Roof Panel Retaining Bolt	4 N·m	35 lb in
Centre Speaker to Instrument Panel (I/P) Attaching Screws	2 N·m	18 lb in
Front Speaker Assembly to Door Frame Attaching Screws	2 N·m	18 lb in
Infotainment Unit to I/P Retaining Screws	2 N·m	18 lb in
Rear Speaker Assembly to Door Frame Attaching Screws	2 N·m	18 lb in
Subwoofer Assembly to Rear Shelf Attaching Screws	2 N·m	18 lb in
Tweeter Speaker to I/P Attaching Screw	2 N·m	18 lb in

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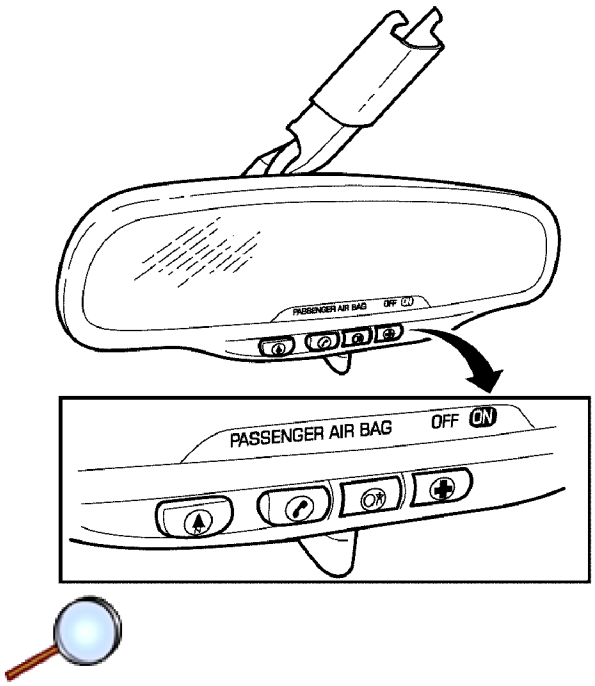
OnStar Button Assembly Replacement

OnStar Button Assembly Replacement



- The OnStar® button assembly is integrated into the rearview mirror assembly and cannot be serviced separately from the rear view mirror assembly.
- Should the OnStar® button assembly require servicing, the entire rearview mirror assembly will need to be replaced. Refer to Inside Rearview Mirror Replacement.

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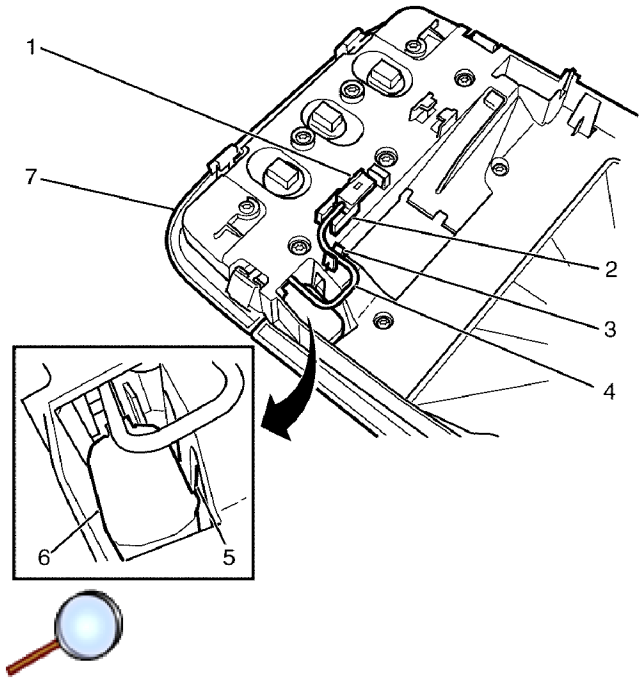
Communication Interface Module Microphone Replacement

Removal Procedure

Warning: Refer to Battery Disconnect Warning in the Preface section.

1. Disconnect the battery ground cable. Refer to Battery Negative Cable Disconnection and Connection.
2. Remove the front dome lamp assembly. Refer to Dome Lamp Replacement.



3. Detach the microphone connecter (1) from the retainer (2).
4. Detach the microphone harness (4) from the retainer (3).

Notes: Care should be taken not to damage the microphone retainer (5)

Notes: Slide the microphone (6) towards the microphone retainer (5) and lift the microphone (6) away from the dome lamp assembly (7).

5. Apply suitable pressure to the microphone retainer (5) away from the microphone (6).
6. Remove the microphone (6) from the dome lamp assembly (7).

Installation Procedure

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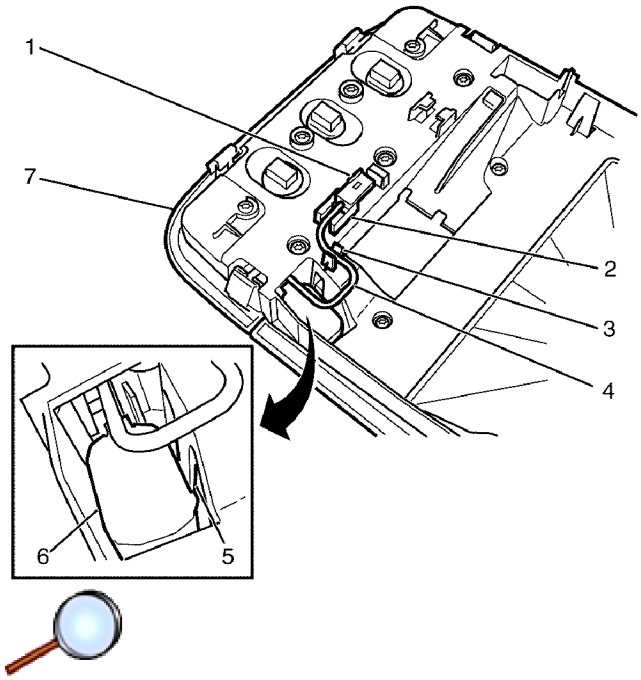


Notes: Listen for an audible click to confirm correct installation of the microphone (6) to the dome lamp assembly (7).

1. Install the microphone (6) to the dome lamp assembly (7).
2. Attach the microphone harness (4) to the retainer (3).
3. Attach the microphone connecter (1) to the retainer (2).
4. Install the front dome lamp assembly. Refer to Dome Lamp Replacement.
5. Connect the battery ground cable. Refer to Battery Negative Cable Disconnection and Connection.

Communication Interface Module Replacement

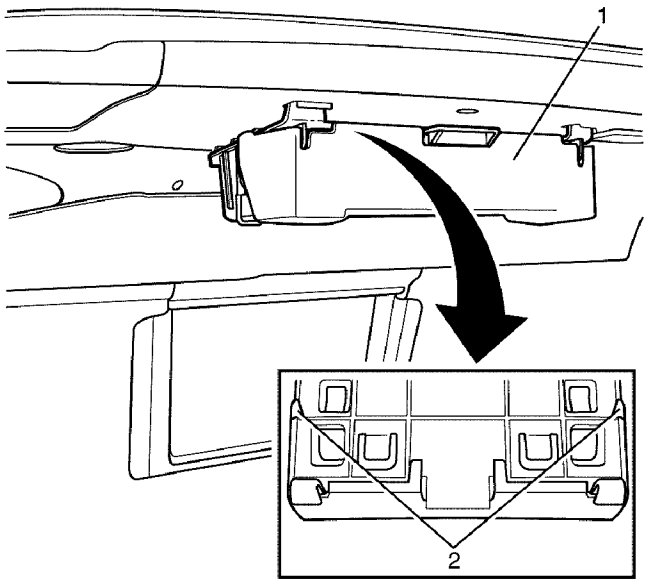
Servicing of the vehicle communication interface module (VCIM) will consist of either programming the VCIM via the OnStar® call centre or replacement of the VCIM.

Notice:

- Turn the ignition OFF when installing or removing the control module connectors and disconnecting or reconnecting the power to the control module (battery cable, powertrain control module (PCM)/engine control module (ECM)/transaxle control module (TCM) pigtail, control module fuse, jumper cables, etc.) in order to prevent internal control module damage.
- Control module damage may result when the metal case contacts battery voltage. DO NOT contact the control module metal case with battery voltage when servicing a control module, using battery booster cables, or when charging the vehicle battery.
- In order to prevent any possible electrostatic discharge damage to the control module, do no touch the connector pins or the soldered components on the circuit board.
- Remove any debris from around the control module connector surfaces before servicing the control module. Inspect the control module connector gaskets when diagnosing or replacing the control module. Ensure that the gaskets are installed correctly. The gaskets prevent contaminant intrusion into the control module.
- The replacement control module must be programmed.

Important: The VCIM once programmed, becomes permanently assigned to the vehicle identification number. A 10-digit station identification and an 11-digit electronic serial number, are used by the National Cellular Network carrier and OnStar® to identify the vehicle. Because these numbers are permanently assigned to the vehicle identification number, the VCIM must not be exchanged with that of another vehicle.

Removal Procedure



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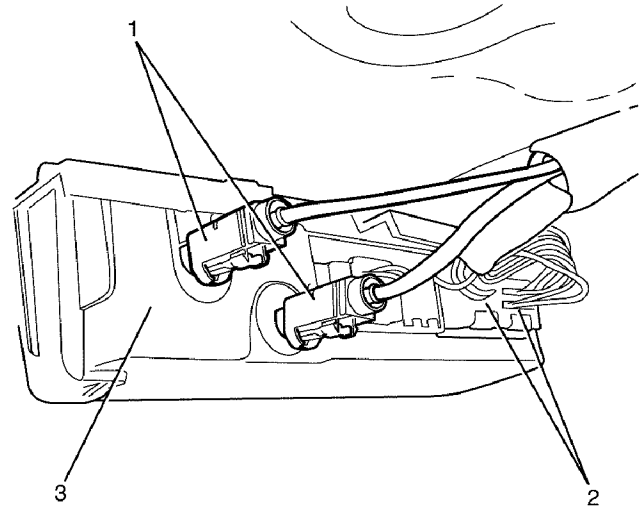
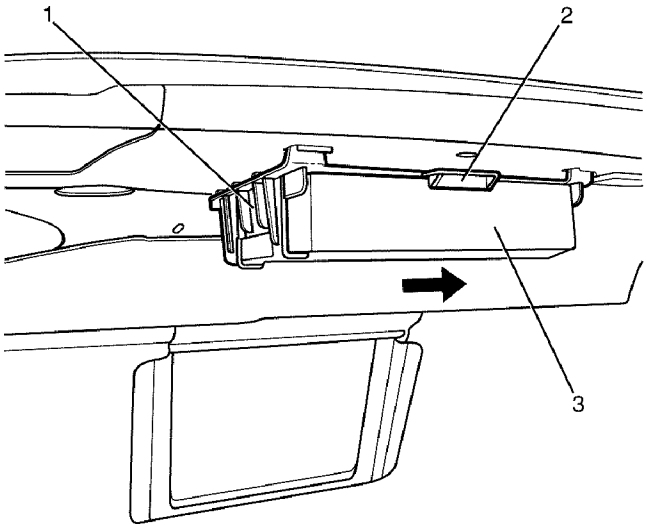
1. Unclip the VCIM fascia cover (1) at the retaining clips (2) and remove the VCIM fascia cover (1) from the vehicle.

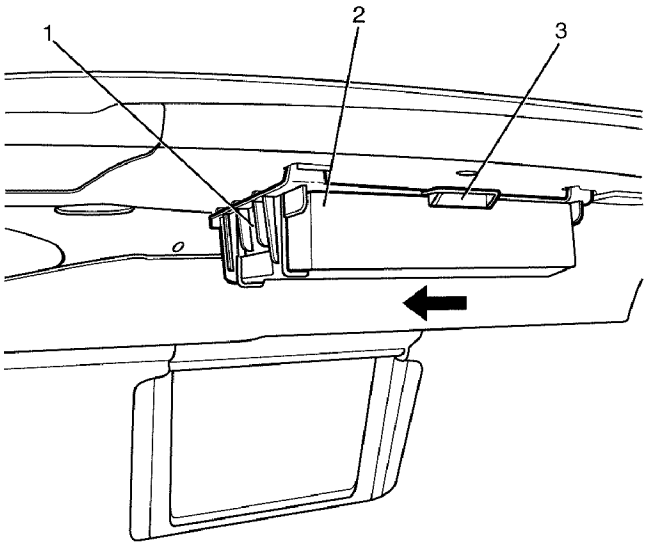


2. Disconnect the antenna connectors (1) and the harness connectors (2) from the VCIM (3).

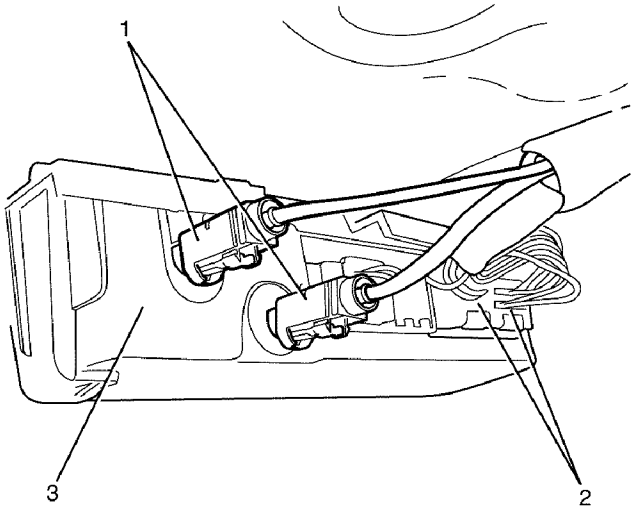


3. Remove the VCIM (3) by pressing up on the retaining clip (2) and sliding the VCIM (3) out of the supporting bracket (1).

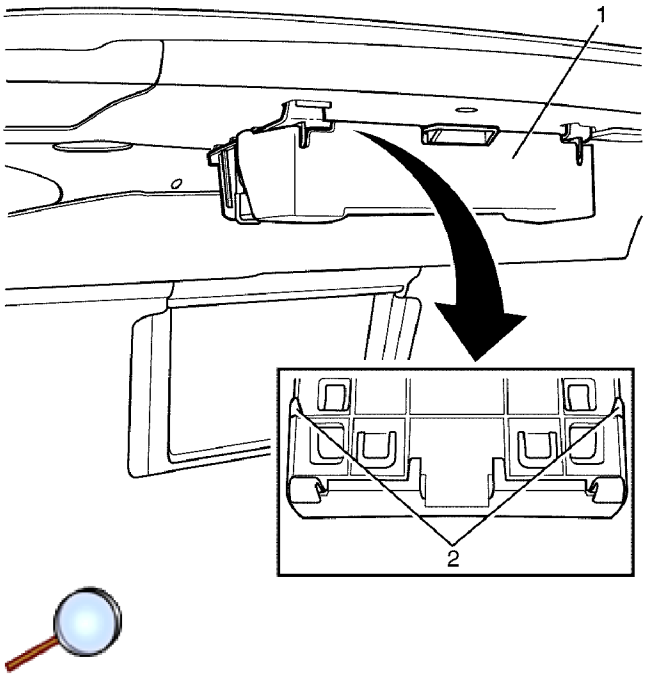
Installation Procedure



1. Slide the VCIM (2) into the supporting bracket (1) and ensure that the retaining clip (3) locks the VCIM into place. Listen for an audible click to confirm correct fitting.



2. Connect the antenna connectors (1) and the wiring harness connectors (2) to the VCIM (3).



3. Install the cover (1) and make sure that the retaining clips (2) locks into place. Listen for an audible click to confirm fitting.

Important: After replacing the vehicle communication interface module, you must configure the OnStar® system.

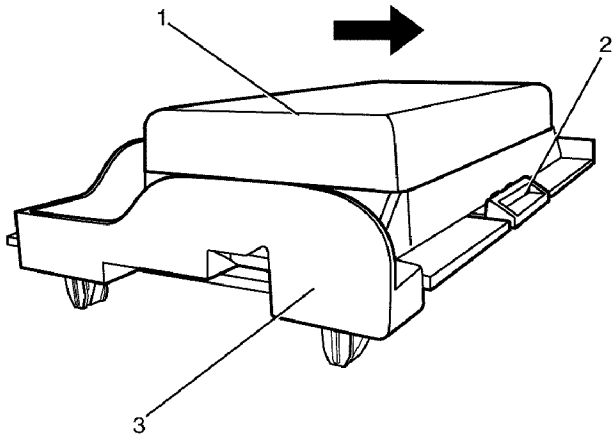
4. Program the VCIM after replacement. Refer to Control Module References in Control Module References.

Communication Interface Module Battery Replacement

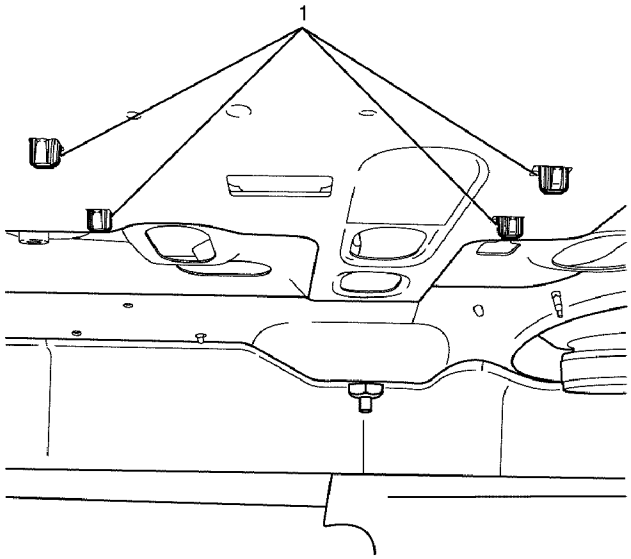
Removal Procedure

Warning: Refer to Battery Disconnect Warning in the Preface section.

1. Disconnect the battery ground cable. Refer to Battery Negative Cable Disconnection and Connection.
2. Remove the rear window shelf trim panel. Refer to Rear Window Shelf Trim Panel Replacement.



3. Disengage the backup battery supporting bracket retaining clip (2) to release the backup battery (1).



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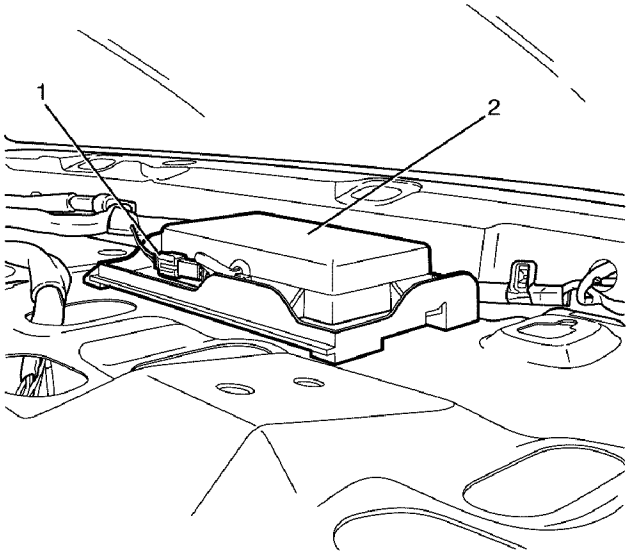
4. In the rear compartment, under the rear window shelf, using a suitable tool disengage the retaining clips (1) and remove the backup battery assembly.



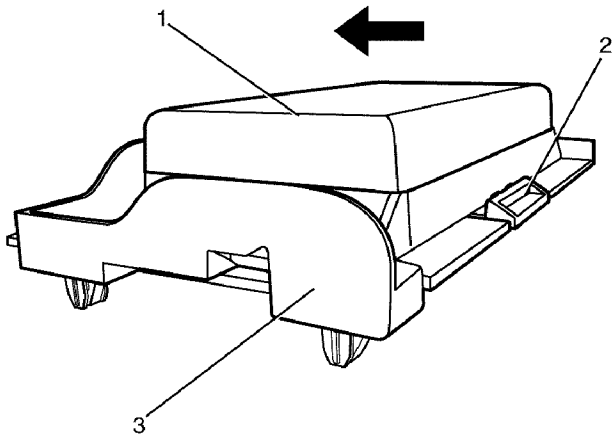
5. Disconnect the backup battery electrical connector (1) from the backup battery (2).

Note: If replacing the battery, dispose of the battery in an environmentally friendly manner.

Note: Slide the backup battery (1) over the backup battery supporting bracket retaining clip (2) and remove the backup battery (1) from the battery supporting bracket (3).

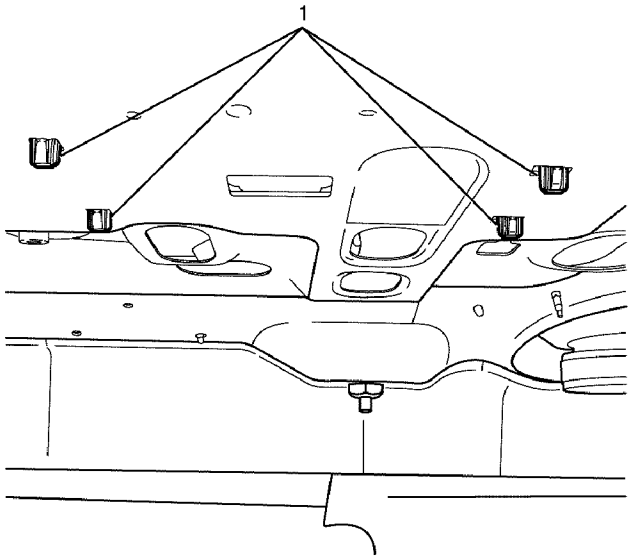
6. Remove the backup battery (1) from the backup battery supporting bracket (3).

Installation Procedure



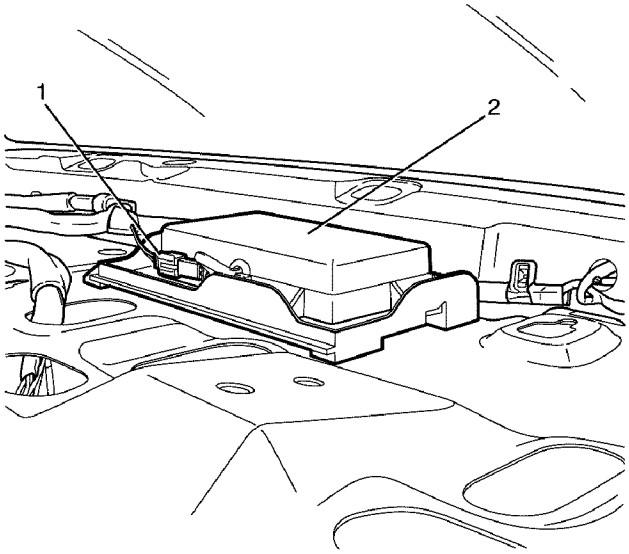
Note: Slide the backup battery (1) over the backup battery supporting bracket retaining clip (2) and listen for an audible click to ensure that the backup battery supporting bracket retaining clip (2) engages correctly to avoid an induced rattle condition.

1. Install the backup battery (1) to the backup battery supporting bracket (3).



Note: Make sure that the backup battery supporting bracket retaining clips (1) engages correctly to avoid an induced rattle condition.

2. Install the backup battery assembly to the rear window shelf and ensure that the retaining clips (1) engages correctly.

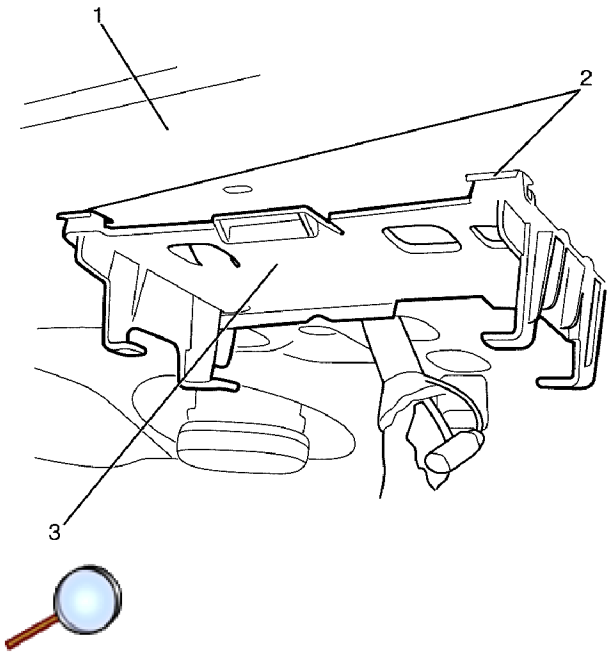


3. Connect the backup battery electrical connector (1) to the backup battery (2).
4. Install the rear window shelf trim panel. Refer to Rear Window Shelf Trim Panel Replacement.
5. Connect the battery ground cable. Refer to Battery Negative Cable Disconnection and Connection.

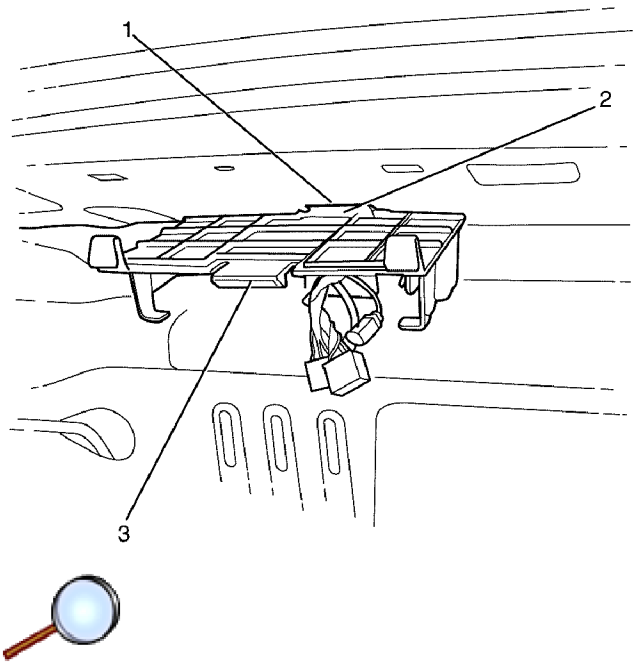
Communication Interface Module Bracket Replacement

Removal Procedure

1. Remove the vehicle communication interface module (VCIM). Refer to Communication Interface Module Replacement.



2. Disengage the VCIM bracket to body retaining clips (2).
3. Lower the rear end of the VCIM bracket (3) away from the body (1).



4. Slide the VCIM bracket retainer (2) out of the body slot (1).
5. Remove the VCIM bracket (3) from the vehicle.

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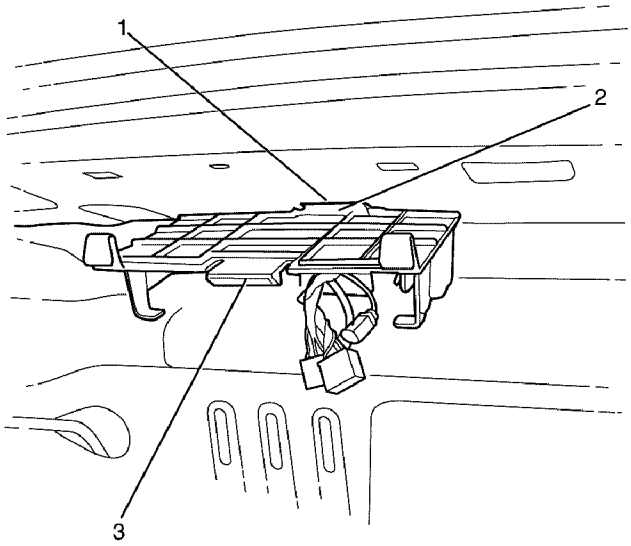
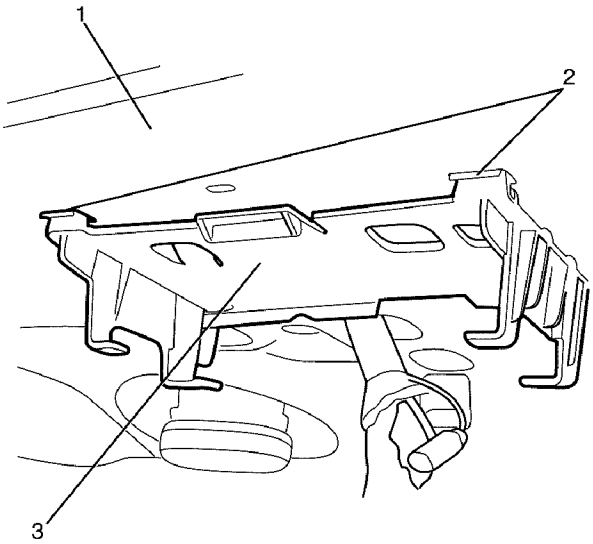
Installation Procedure



1. Install the VCIM bracket (3) to the vehicle.
2. Slide the VCIM bracket retainer (2) into the body slot (1).

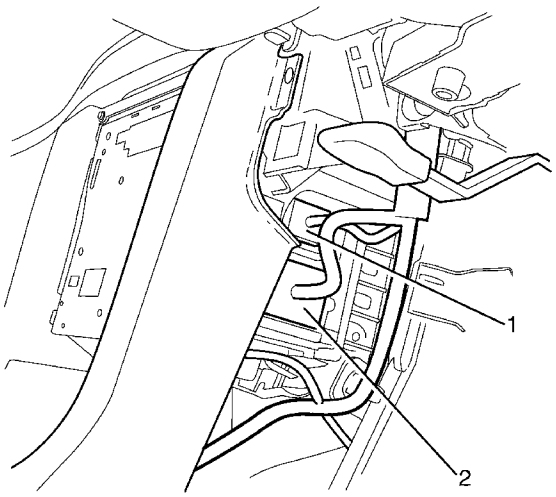


3. Apply suitable upward pressure to the VCIM bracket (3) to engage the VCIM bracket to body retaining clips (2) to the body (1).
4. Install the VCIM. Refer to Communication Interface Module Replacement.

Radio Replacement

Removal Procedure

1. Remove the infotainment fascia. Refer to Driver Information Display Replacement.
2. Remove the instrument panel compartment assembly. Refer to Instrument Panel Compartment Replacement.
3. Remove the driver side instrument panel lower trim panel assembly. Refer to Knee Bolster Replacement.
4. Remove the left and right side instrument panel lower extension panels. Refer to Instrument Panel Extension Replacement.



Note: Make sure to release the retaining lever on the infotainment electrical connector (2) before disconnecting.

5. Disconnect the connectors (1 and 2 where applicable) from the right side of the infotainment unit.

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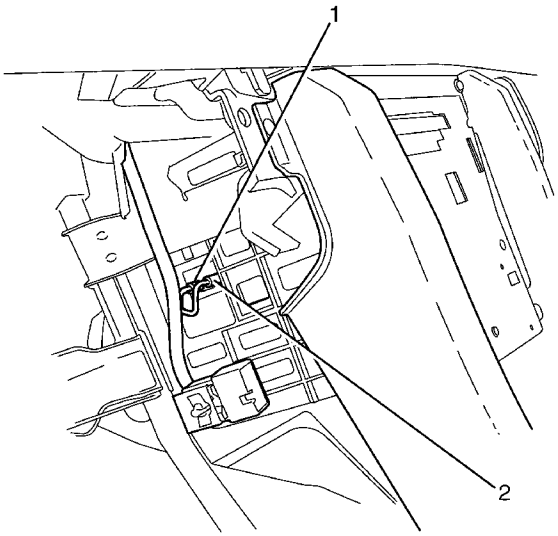
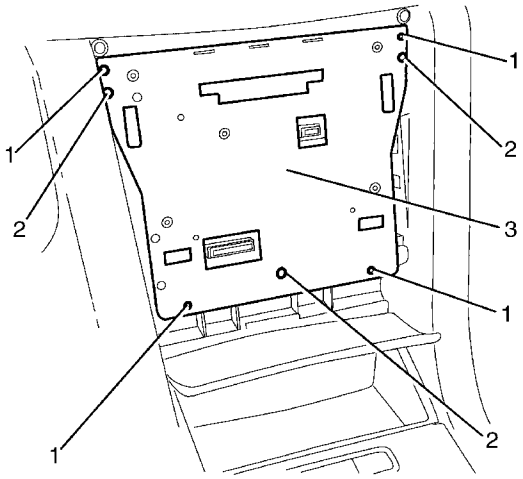


Note: To disconnect coaxial connections, pinch down on the retaining clip near connection side of unit and push connector into the unit and slide connector away from the infotainment unit.

Note: Do not remove by pulling on the coaxial cables as they will be dislodged from the connector.

6. Disconnect the connectors (1 and 2 where applicable) from the left side of the infotainment unit.

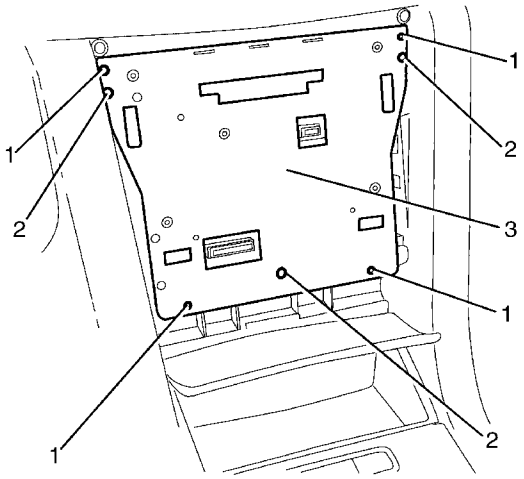


7. Remove the infotainment unit to instrument panel retaining screws (1).

Note: Observe position of aligning lugs (2).

8. Remove the infotainment unit (3) from the instrument panel.

Installation Procedure

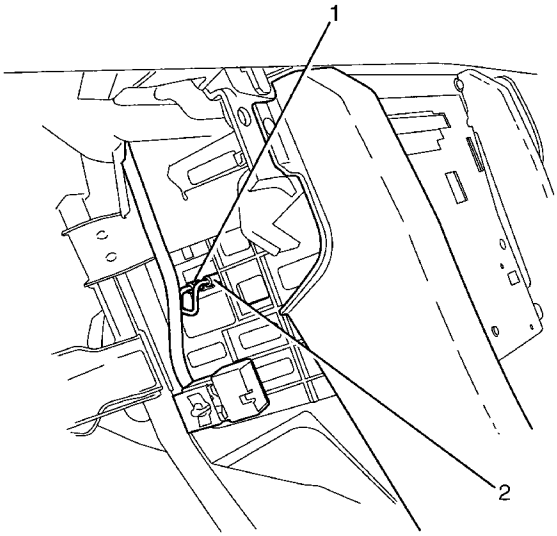


Note: Make sure to guide the infotainment unit (3) over the aligning lugs (2).

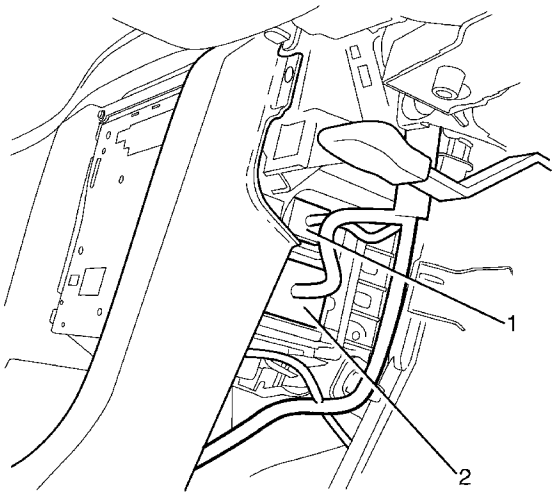
1. Install the infotainment unit (3).

   Caution: Refer to Fastener Caution in the Preface section.

2. Install the infotainment unit to instrument panel retaining screws (1) and tighten to **2 N·m (18 lb in)**.



3. Connect the left side infotainment unit electrical connectors (1 and 2 where applicable).

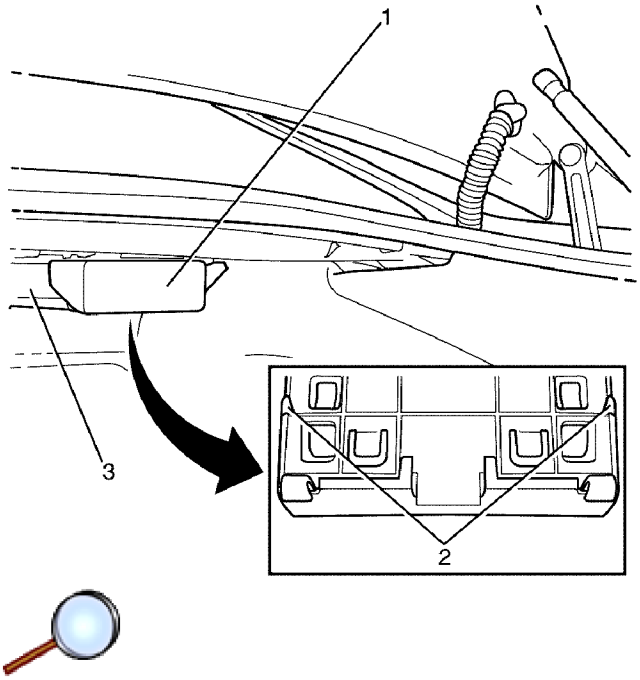


Note: Make sure to close the retaining lever on the infotainment electrical connector (2) once connected.

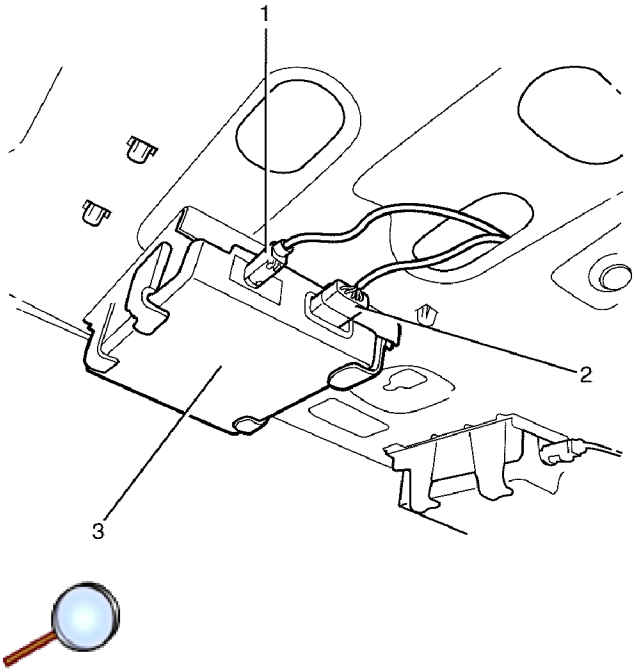
4. Connect the right side infotainment unit electrical connectors (1 and 2 where applicable).
5. Install the left and right side instrument panel lower extension panels. Refer to Instrument Panel Extension Replacement.
6. Install the driver side instrument panel lower trim panel assembly. Refer to Knee Bolster Replacement.
7. Install the instrument panel compartment assembly. Refer to Instrument Panel Compartment Replacement.
8. Install the infotainment fascia. Refer to Driver Information Display Replacement.
9. Refer to Control Module References.

Digital Radio Receiver Replacement

Removal Procedure



1. Disengage the digital radio receiver fascia to digital radio receiver bracket retaining clips (2).
2. Remove the digital radio receiver fascia (1) from the digital radio receiver bracket (3).



Notice:

- Turn the ignition OFF when installing or removing the control module connectors and

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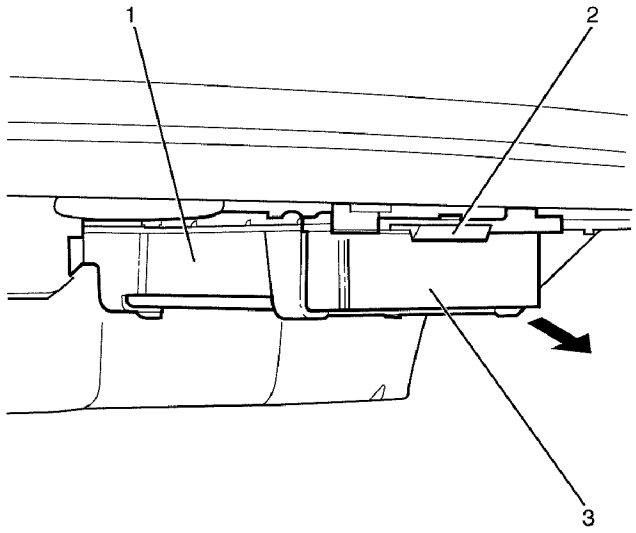
disconnecting or reconnecting the power to the control module (battery cable, powertrain control module (PCM)/engine control module (ECM)/transaxle control module (TCM) pigtail, control module fuse, jumper cables, etc.) in order to prevent internal control module damage.

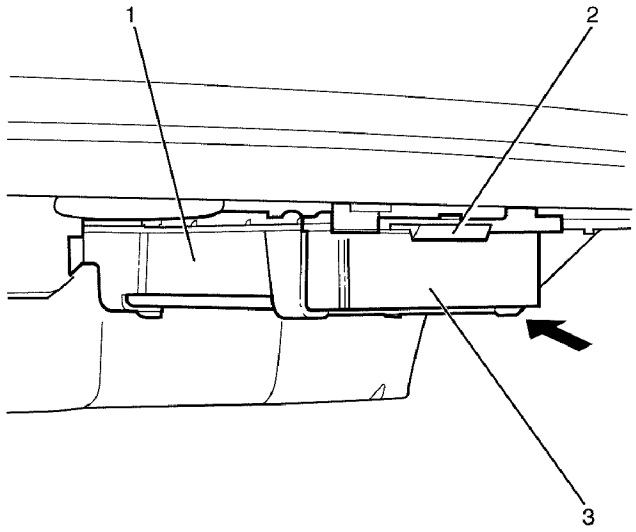
- Control module damage may result when the metal case contacts battery voltage. DO NOT contact the control module metal case with battery voltage when servicing a control module, using battery booster cables, or when charging the vehicle battery.
- In order to prevent any possible electrostatic discharge damage to the control module, do no touch the connector pins or the soldered components on the circuit board.
- Remove any debris from around the control module connector surfaces before servicing the control module. Inspect the control module connector gaskets when diagnosing or replacing the control module. Ensure that the gaskets are installed correctly. The gaskets prevent contaminant intrusion into the control module.
- The replacement control module must be programmed.

3. Disconnect the antenna connector (1) and the harness connector (2) from the digital radio receiver module (3).

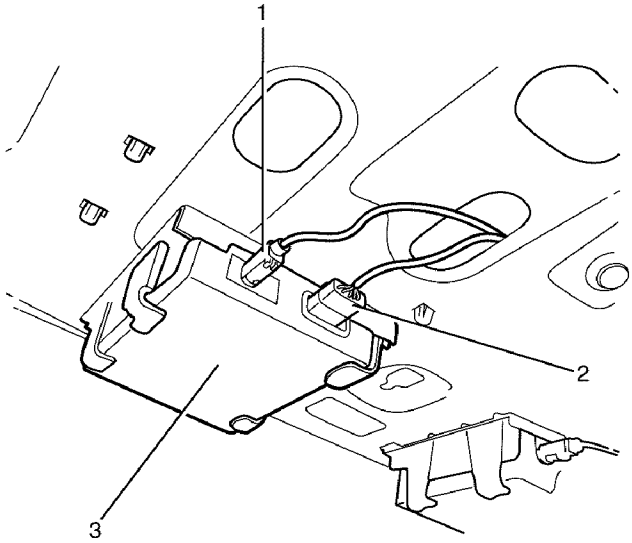


4. Slide the digital radio receiver module (3) away from the digital radio receiver bracket (1).

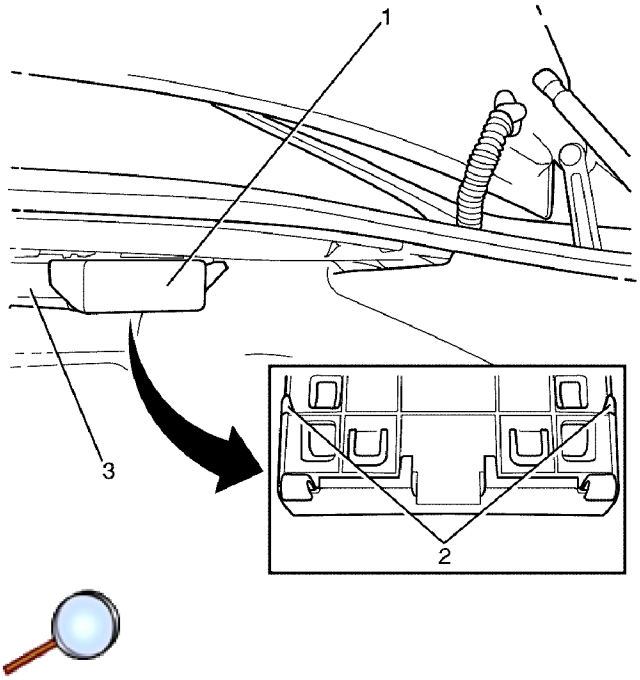
Installation Procedure



1. Install the digital radio receiver module (3) to the digital radio receiver bracket (1).



2. Connect the antenna connector (1) and the wiring harness connector (2) to the digital radio receiver module (3).

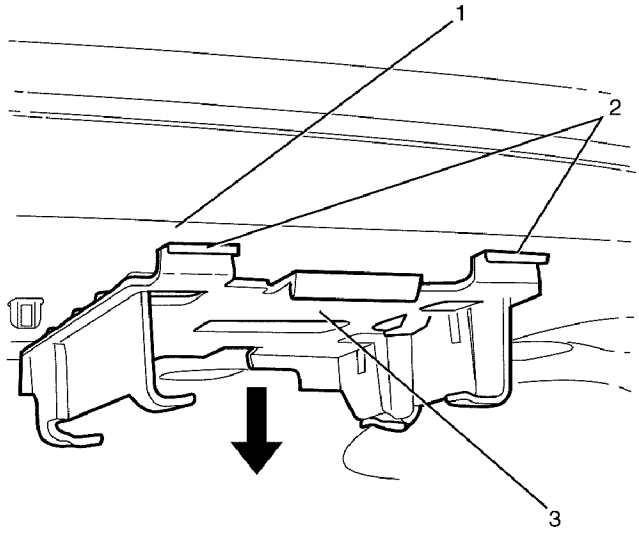


3. Install the digital radio receiver fascia (1) to the digital radio receiver bracket (3).
4. If the digital radio receiver module has been replaced, contact the XM radio service helpline to activate the operation of the new digital radio receiver module. Refer to Control Module References.

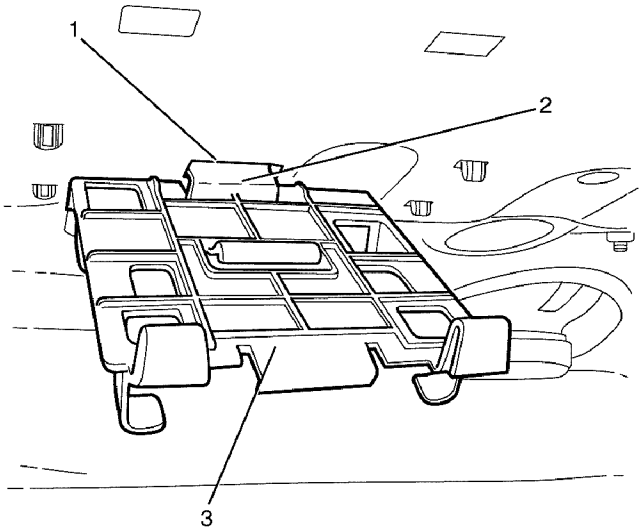
Digital Radio Receiver Bracket Replacement

Removal Procedure

1. Remove the digital radio receiver module. Refer to Digital Radio Receiver Replacement.



2. Disengage the digital radio receiver bracket to body retaining clips (2).
3. Lower the rear end of the digital radio receiver bracket (3) away from the body (1).



4. Slide the digital radio receiver bracket retainer (2) out of the body slot (1).
5. Remove the digital radio receiver bracket (3) from the vehicle.

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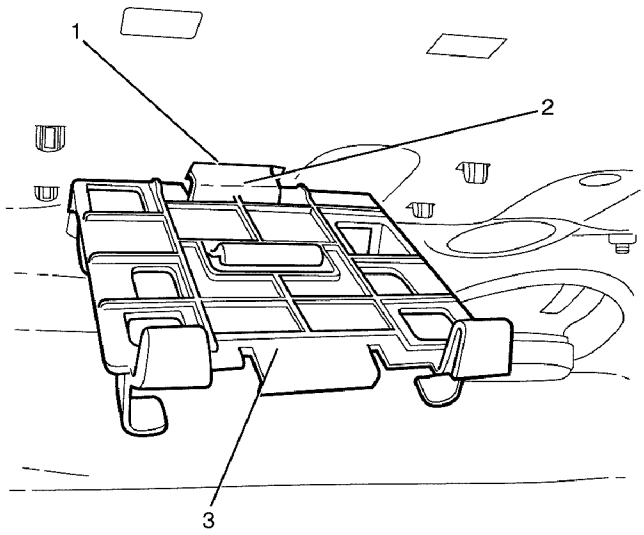
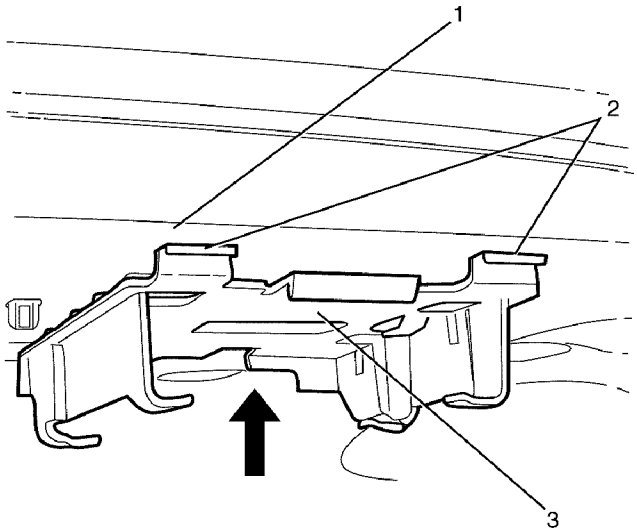
Installation Procedure



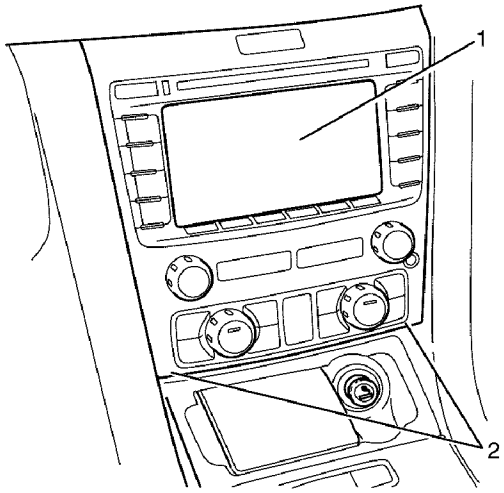
1. Install the digital radio receiver bracket (3) to the vehicle.
2. Slide the digital radio receiver bracket retainer (2) into the body slot (1).



3. Apply suitable upward pressure to the digital radio receiver bracket (3) to engage the digital radio receiver bracket to body retaining clips (2).
4. Install the digital radio receiver module. Refer to Digital Radio Receiver Replacement.

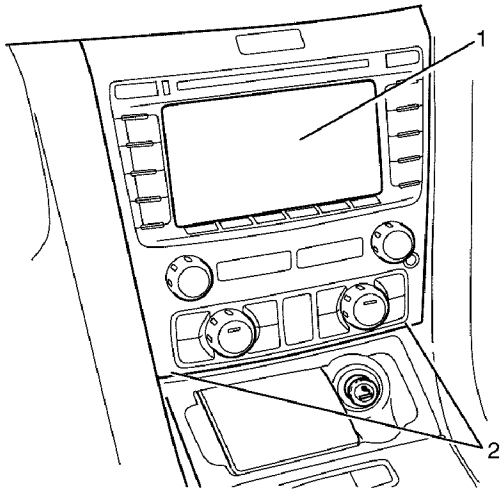
Driver Information Display Replacement

Removal Procedure



1. Grasp the bottom of the infotainment fascia (1) with both hands at point (2) and pull away from the instrument panel, disconnecting the fascia retainers.
2. Remove the infotainment fascia (1) from the infotainment unit.

Installation Procedure



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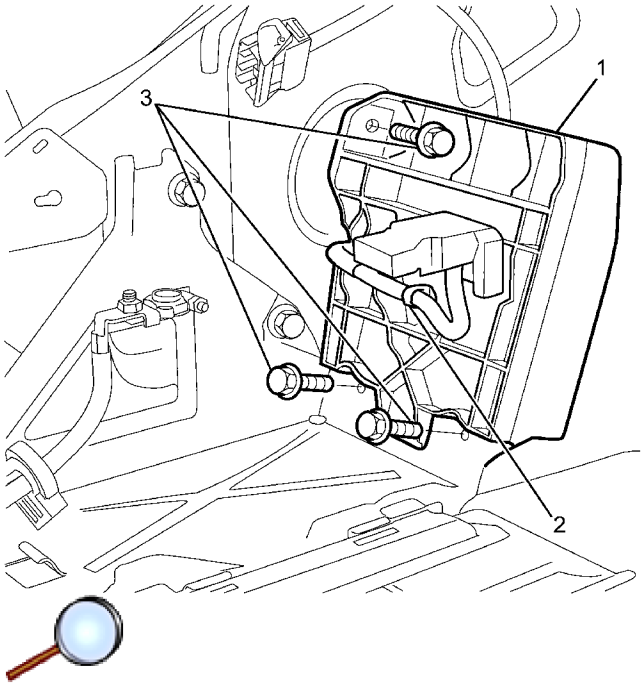
Important: Align the infotainment fascia retainers with the infotainment unit.

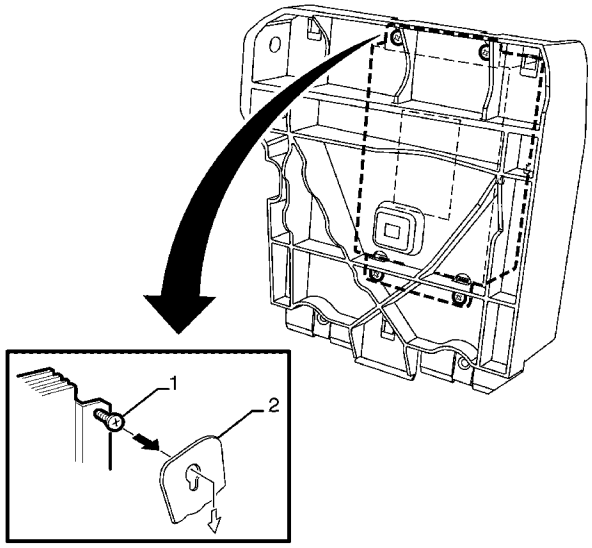
1. Install the infotainment fascia (1) to the infotainment unit.
2. Refer to Control Module References.

Radio Speaker Amplifier Replacement

Removal Procedure



1. Remove the left-hand side carpet trim. Refer to Rear Compartment Side Trim Panel Replacement.
2. Remove the battery. Refer to Battery Replacement.
3. Disengage the battery harness retainer (2) securing the harness to the amplifier mounting bracket (1).
4. Remove the bolts (3) securing the amplifier mounting bracket to the vehicle.
5. Disconnect the electrical connector from the amplifier.
6. Remove the amplifier and bracket assembly.



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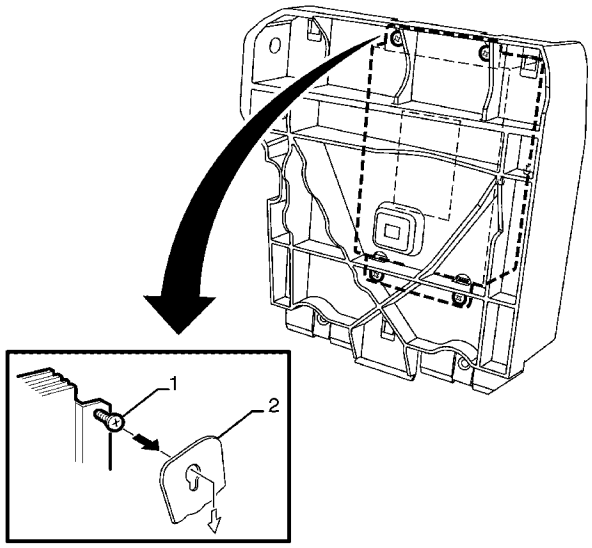
7. Loosen the screws (1) holding the amplifier to the mounting bracket.

   Note: Slide the amplifier upward to release the screw heads from the slots in the mounting bracket.

8. Remove the amplifier from the mounting bracket.

Installation Procedure

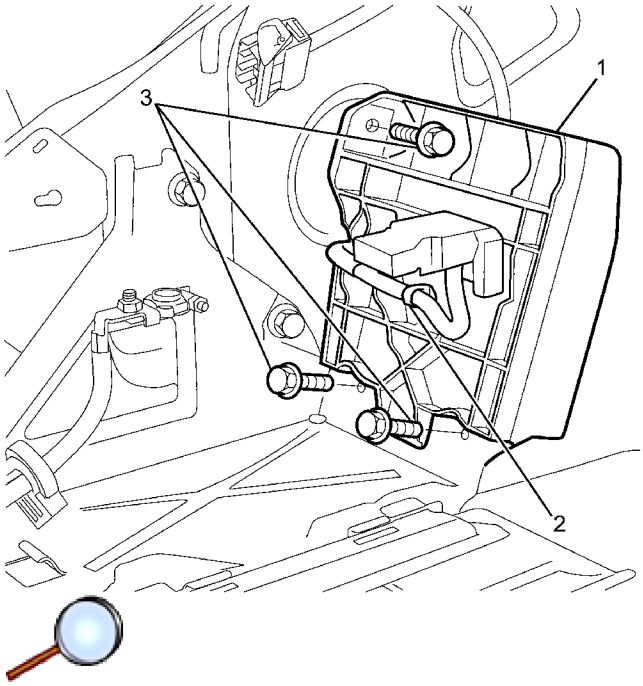


Note: Insert the amplifier screw heads (1) into the mounting bracket slots and slide the amplifier downward to secure the screw heads into the slots in the mounting bracket.

1. Install the amplifier to the mounting bracket.

   Caution: Refer to Fastener Caution in the Preface section.

2. Tighten the amplifier to mounting bracket retaining screws (1) to **2.5 N·m (22 lb in)**.



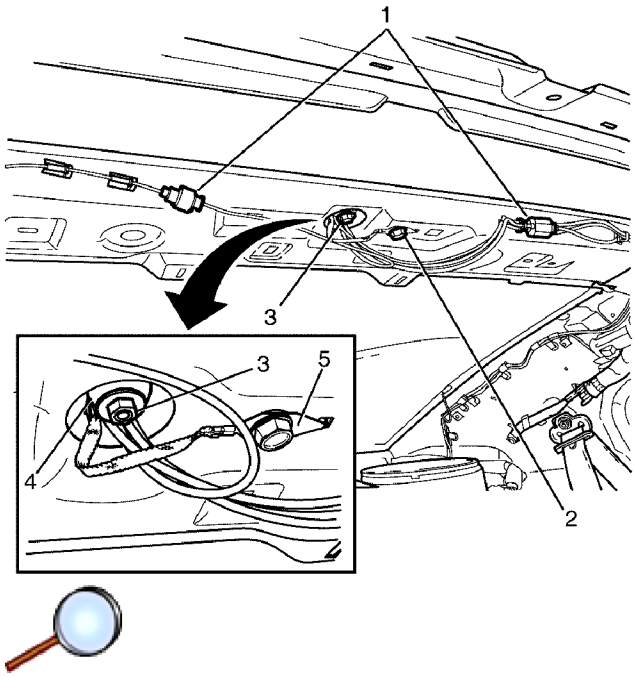
3. Install the amplifier and bracket assembly (1).
4. Connect the electrical connector to the amplifier.
5. Install the amplifier mounting bracket to vehicle retaining bolts (3) and tighten to **22 N·m (16 lb ft)**.

   Note: Make sure the retainer (2) securing the harness to the amplifier mounting bracket (1) engages correctly.

6. Connect the battery harness to the amplifier bracket assembly.
7. Install the battery. Refer to Battery Replacement.
8. Install the left-hand side carpet trim. Refer to Rear Compartment Side Trim Panel Replacement.
9. Refer to Control Module References.

Cellular Communications / Digital Radio Antenna Replacement

Removal Procedure



1. Remove the headliner assembly. Refer to Headlining Trim Panel Replacement.
2. Disconnect the antenna harness connectors (1).
3. Remove the antenna module ground to roof panel retaining bolt (2).
4. Remove the antenna module ground (5).
5. Remove the antenna module to roof panel retaining bolt (3).
6. Remove the retaining clip (4) securing the antenna module to the roof.
7. From outside the vehicle, remove the antenna module assembly, threading the harness through the roof cavity.

Installation Procedure

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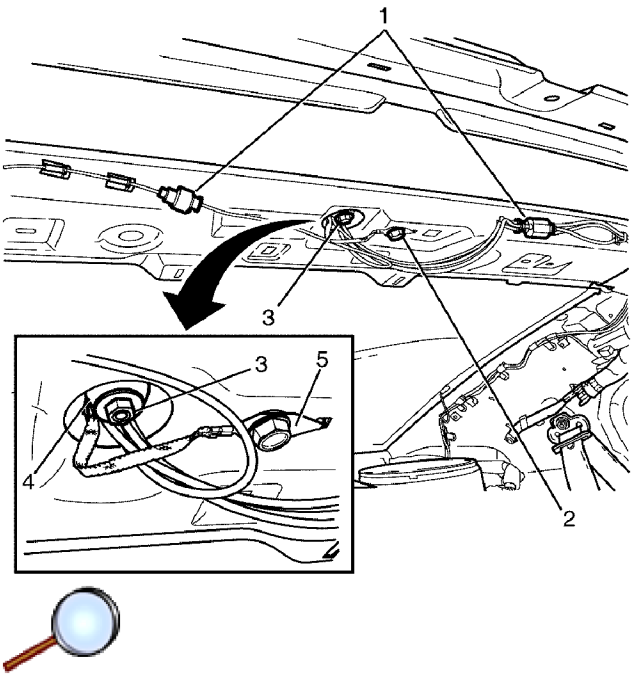


1. From outside the vehicle, install the antenna module assembly to the vehicle, threading the harness through the roof cavity.

   Note: Listen for an audible click to confirm correct installation of the retaining clip (4)

2. Install the retaining clip (4) securing the antenna module to the roof panel.

   Caution: Refer to Fastener Caution in the Preface section.

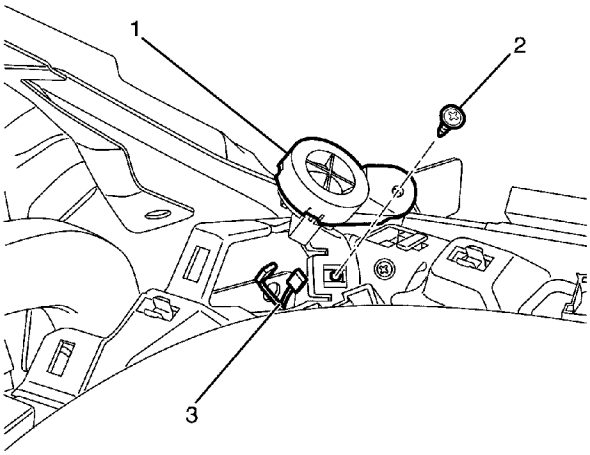
3. Install the antenna module to roof panel retaining bolt (3) and tighten to **9 N·m (80 lb in)**.

   Note: Make sure that the antenna module ground (5) makes a good connection to the body.

4. Install the antenna module ground to roof panel retaining bolt (2) and tighten to **22 N·m (195 lb in**.
5. Connect the electrical connectors (1).
6. Install the headliner assembly. Refer to Headlining Trim Panel Replacement.

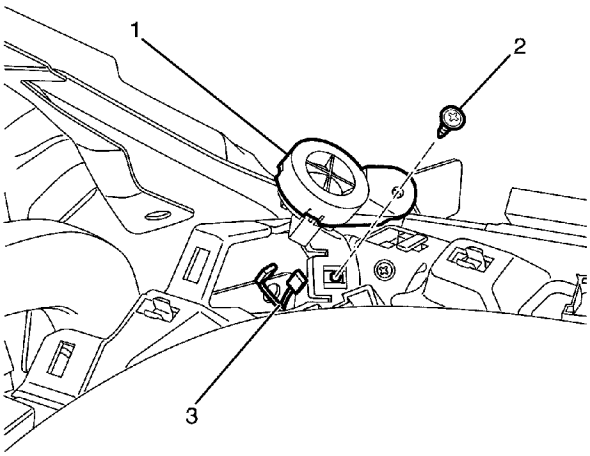
Radio Front Speaker Replacement (Tweeter)

Removal Procedure - Tweeter



1. Remove the left instrument panel (I/P) defroster grille. Refer to Defroster Grille Replacement.
2. Remove the tweeter speaker to I/P attaching screw (2).
3. Disconnect the electrical connector (3).

Installation Procedure - Tweeter



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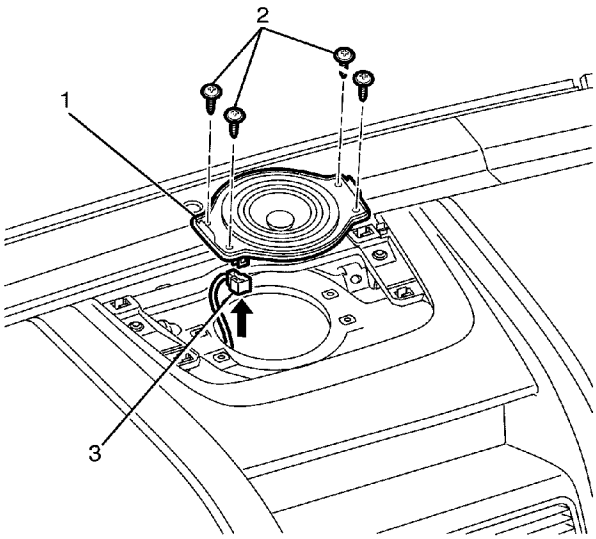
1. Connect the electrical connector (3).

Caution: Refer to Fastener Caution in the Preface section.

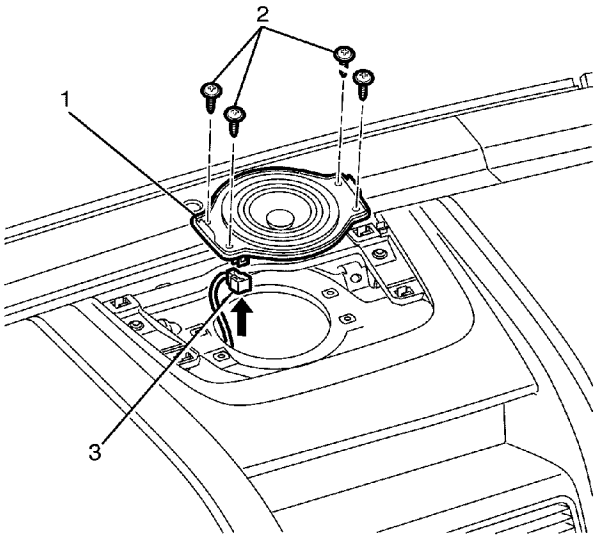
2. Install the tweeter speaker to I/P attaching screw (2) and tighten to **2 N·m (18 lb in)**.
3. Install the left instrument panel defroster grille. Refer to Defroster Grille Replacement.

Removal Procedure - Center



1. Remove the instrument panel (I/P) defroster grilles. Refer to Defroster Grille Replacement.
2. Remove the upper I/P center trim. Refer to Instrument Panel Upper Trim Panel Replacement.
3. Remove the centre speaker to instrument panel attaching screws (2).
4. Disconnect the electrical connector (3).

Installation Procedure - Center



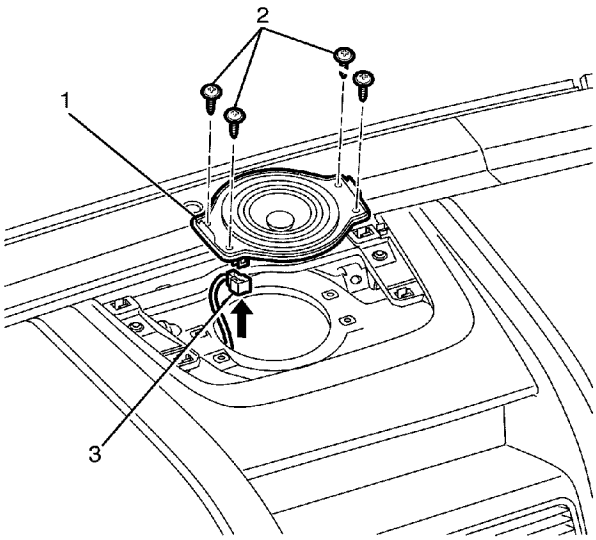
1. Connect the electrical connector (3).

Caution: Refer to Fastener Caution in the Preface section.

2. Install the center speaker to instrument panel attaching screws (2) and tighten to **2 N·m (18 lb in)**.
3. Install the upper I/P center trim. Refer to Instrument Panel Upper Trim Panel Replacement.
4. Install the instrument panel defroster grilles. Refer to Defroster Grille Replacement.

Radio Front Speaker Replacement (Center)

Removal Procedure



1. Remove the instrument panel (I/P) defroster grilles. Refer to Defroster Grille Replacement.
2. Remove the upper I/P center trim. Refer to Instrument Panel Upper Trim Panel Replacement.
3. Remove the centre speaker to instrument panel attaching screws (2).
4. Disconnect the electrical connector (3).

Installation Procedure

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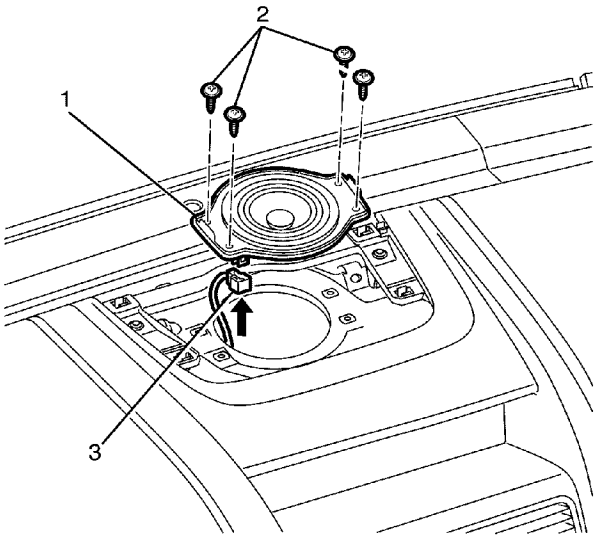


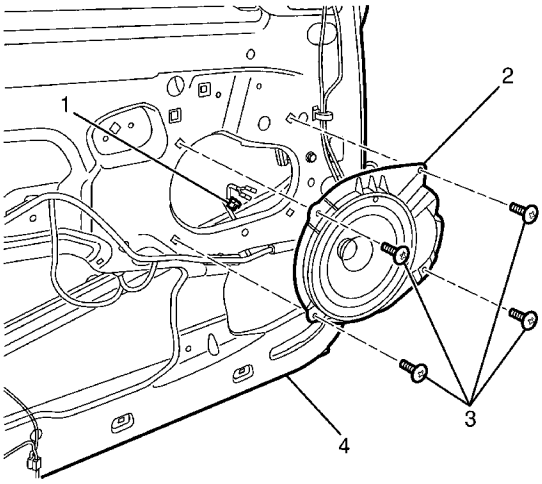
1. Connect the electrical connector (3).

Caution: Refer to Fastener Caution in the Preface section.

2. Install the center speaker to instrument panel attaching screws (2) and tighten to **2 N·m (18 lb in)**.
3. Install the upper I/P center trim. Refer to Instrument Panel Upper Trim Panel Replacement.
4. Install the instrument panel defroster grilles. Refer to Defroster Grille Replacement.

Radio Front Side Door Lower Speaker Replacement

Removal Procedure



1. Remove the front door trim panel. Refer to Front Side Door Trim Panel Replacement.
2. Remove the speaker assembly to door frame retaining screws (3).
3. Disconnect the electrical connector(s) (1).
4. Remove the speaker assembly (2) from the door frame (4).

Installation Procedure

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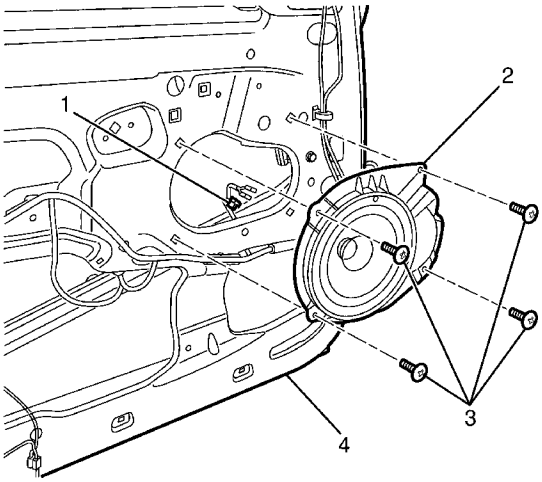


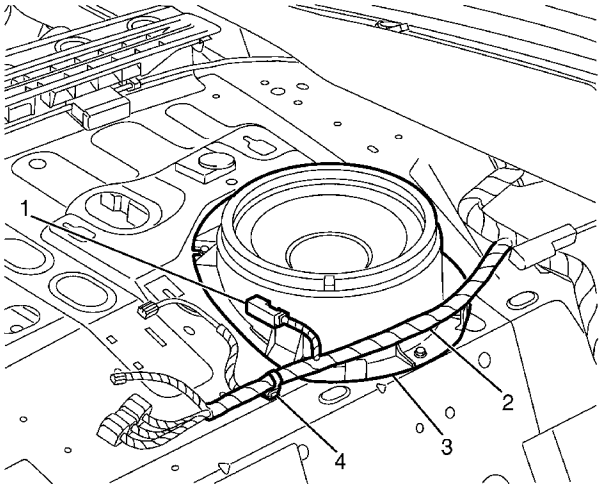
1. Connect the electrical connector(s) (1).
2. Install the speaker assembly (2) to the door frame (4).

Caution: Refer to Fastener Caution in the Preface section.

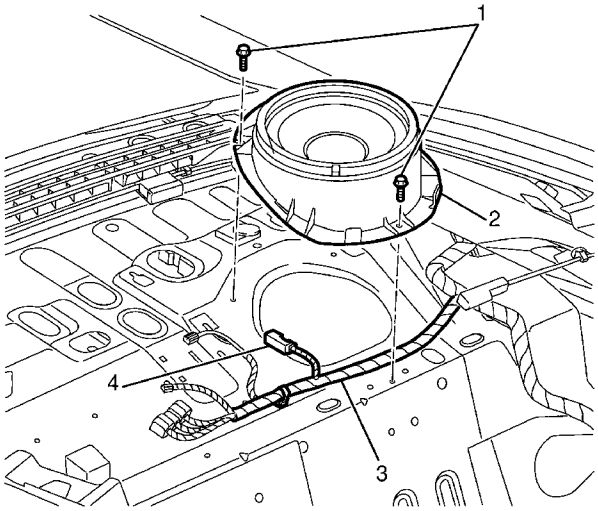
3. Install the front speaker assembly to door frame attaching screws (3) and tighten to **2 N·m (18 lb in)**.
4. Install the front door trim panel. Refer to Front Side Door Trim Panel Replacement.

Radio Rear Speaker Replacement

Removal Procedure



1. Remove the rear shelf trim panel. Refer to Rear Window Shelf Trim Panel Replacement.
2. Disconnect the subwoofer electrical connector (3).
3. Remove the retainer (1) securing the harness (3) to the shelf.



4. Remove the subwoofer assembly to rear shelf attaching screws (1).
5. Slide the harness (3) away from the subwoofer assembly (2).

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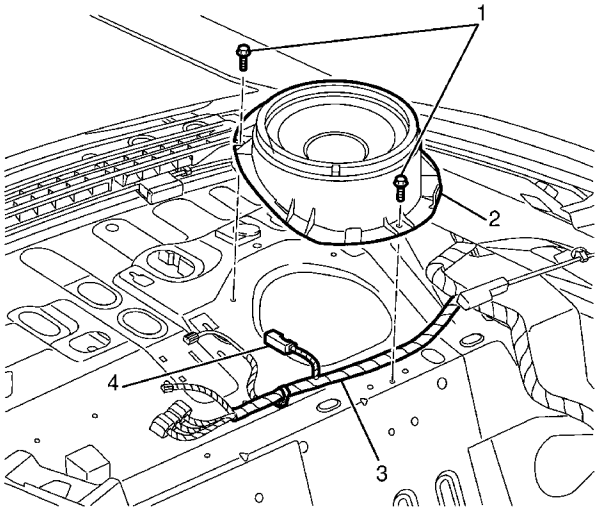
6. Remove the subwoofer assembly (2) from the rear shelf.

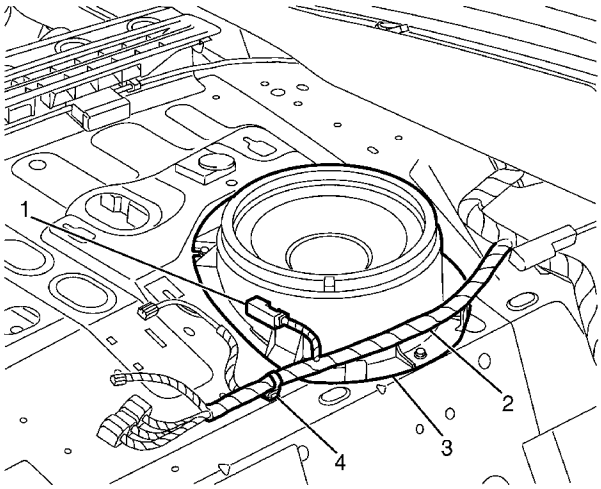
Installation Procedure



1. Install the subwoofer assembly (2) to the rear shelf.

   Caution: Refer to Fastener Caution in the Preface section.

2. Install the subwoofer assembly to rear shelf attaching screws (1) and tighten to **2 N·m (18 lb in)**.

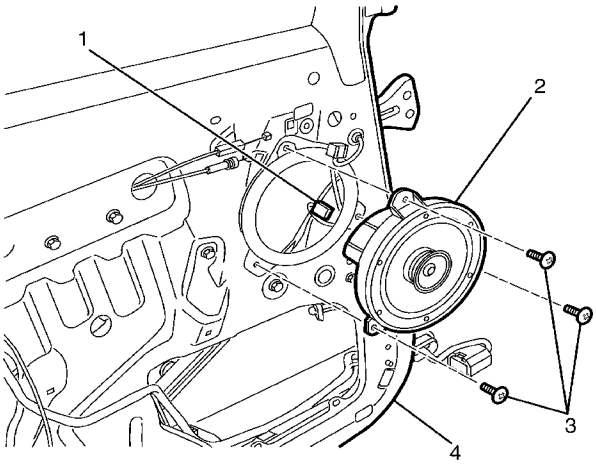


3. Secure the electrical harness retainer (1) to the shelf.
4. Connect the subwoofer electrical connector (2).

5. Install the rear shelf trim panel. Refer to Rear Window Shelf Trim Panel Replacement.

Radio Rear Side Door Speaker Replacement

Removal Procedure



1. Remove the rear door trim panel. Refer to Rear Side Door Trim Panel Replacement.
2. Remove the speaker assembly to door frame attaching screws (3).
3. Disconnect the electrical connectors (1).
4. Remove the speaker assembly (2) from the door frame (4).

Installation Procedure

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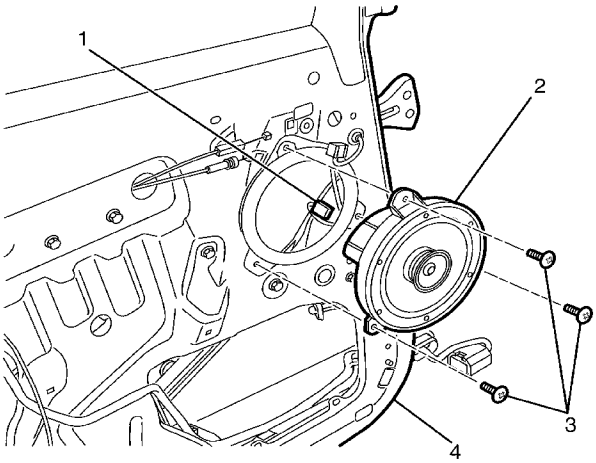

1. Connect the electrical connectors (1).
2. Install the speaker assembly (2) to the door frame (4).

Caution: Refer to Fastener Caution in the Preface section.

3. Install the rear speaker assembly to door frame attaching screws (3) and tighten to **2 N·m (18 lb in)**.
4. Install the rear door trim panel. Refer to Rear Side Door Trim Panel Replacement.